

Abstract:

Data values representing the $(I^2 + Q^2)$ values are converted to floating-point representations and a histogram of the floating-point numbers is generated. The count for each histogram bin in the histogram is stored in a memory. Each floating-point number acts as an address for a corresponding histogram bin in the memory. The accumulated counts in the histogram bins are then grouped into a desired number of CCDF bins, and the CCDF curve is derived from the histogram data. Grouping the histogram bins into the CCDF bins may include combining one or more histogram bins into a single CCDF bin. Linear interpolation is used to divide a count value in a histogram bin between two CCDF bins when the histogram bin does not align with a single CCDF bin.